What is claimed is:

1. A method of operating a computer system to add a TCR resistor to a CMOS integrated circuit manufacturing flow comprising the steps of:

retrieving said CMOS integrated circuit manufacturing flow;

retrieving a TCR resistor program;

inputting target resistance and TCR specification for said TCR resistor into said computer system;

selecting a first implantation dose from said CMOS integrated circuit manufacturing flow to be implanted into a body of said TCR resistor;

selecting at least a second implantation dose from said CMOS integrated circuit to be implanted into said body;

adjusting said second implantation dose to generate an adjusted implant with an acceptable specification range dose;

retrieving TCR vs. active doping data;

retrieving TCR vs. carbon doping data;

determining if a TCR of said TCR resistor meets said TCR specification with said first implantation dose and with said adjusted implant;

using said TCR vs. carbon doping data to select a carbon dose to adjust said resistance of said TCR resistor to within said TCR specification; and

adding said carbon dose to at least one of said first implantation dose and said adjusted implant;

forming a TCR manufacturing flow for forming an integrated circuit with said TCR resistor using no additional masking steps where said body of said TCR resistor is implanted with said first implantation dose and with said adjusted implant; and

storing said TCR manufacturing flow.

2. The method of claim 1 where said carbon dose is added to said adjusted implant.

3. The method of claim 2 where said carbon dose is in the range of about 5×10^{14} atoms/cm^2 and 2×10^{15} atoms/cm^2.

4. The method of claim 1 where said first implant is an NSD implant and where said adjusted implant is a pregate etch n-type doping implant.

5. The method of claim 1 where said TCR resistor is a n-type TCR polysilicon resistor with an n-type doping density in the range from about 6E20/cm^3 to about 1.3E21/cm^3.

6. The method of claim 4 where said TCR resistor is about 70 nm thick and where said NSD implant is about 2E15/cm^2 arsenic plus about 2E15/cm^2 phosphorus and where said adjusted implant is about 5E15/cm^2 phosphorus.

7. The method of claim 4 where said TCR resistor is about 70 nm thick and where said NSD implant is about 2E15/cm^2 arsenic plus about 2E15/cm^2 phosphorus and where said adjusted implant is about 5E15/cm^2 phosphorus plus about 2E15/cm^2 carbon.

8. The method of claim 1 where said TCR resistor is a p-type TCR resistor with a p-type doping density in the range from about 2E20/cm^3 to about 8E20/cm^3.

9. A method of creating a TCR manufacturing flow for fabricating an integrated circuit with a TCR resistor with no additional masking from a CMOS integrated circuit manufacturing flow steps, comprising the steps of:

retrieving said CMOS integrated circuit manufacturing flow;

retrieving a TCR resistor program;

inputting target resistance and TCR specification for said TCR resistor into said computer system;

selecting an NSD implant dose from said CMOS integrated circuit manufacturing flow to be implanted into a body of said TCR resistor;

selecting a pre-gate etch n-type doping implant dose from said CMOS integrated circuit to be implanted into said body;

adjusting said pre-gate etch n-type doping implant dose to generate an adjusted implant with an acceptable specification range dose;

forming the TCR manufacturing flow for fabricating an integrated circuit with said TCR resistor where said body of said TCR resistor is implanted with said NSD implant dose and with said adjusted implant; and

storing said TCR manufacturing flow.

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